**Amendments to the Claims:**

Please amend claims 4-6, and add new claims 15-23. This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-3. (Canceled)

4. (Currently Amended) A method for culturing neural stem cells comprising the step of culturing a neural stem cell or a population of cells comprising at least one neural stem cell in the growth medium comprising **[[**(i)**]]** 1 ng/ml to 1 mg/ml of hepatocyte growth factor (HGF) and fibroblast growth factor-2 (FGF-2)~~, (ii) HGF and epidermal growth factor (EGF), or (iii) HGF, FGF-2 and EGF~~.

5. (Currently Amended) A method for proliferating neural stem cells comprising the step of culturing a neural stem cell or a population of cells comprising at least one neural stem cell in the growth medium comprising **[[**(i)**]]** 1 ng/ml to 1 mg/ml of hepatocyte growth factor (HGF) and fibroblast growth factor-2 (FGF-2)~~, (ii) HGF and epidermal growth factor (EGF), or (iii) HGF, FGF-2 and EGF~~.

6. (Currently Amended) A method for differentiating neural stem cells into a population of cells containing neurons and glia cells comprising the step of culturing a neural stem cell or a population of cells comprising at least one neural stem cell in the growth medium comprising **[[**(i)**]]** 1 ng/ml to 1 mg/ml of hepatocyte growth factor (HGF) and fibroblast growth factor-2 (FGF-2)~~, (ii) HGF and epidermal growth factor (EGF), or (iii) HGF, FGF-2 and EGF~~ under conditions that allow the differentiation of the neural stem cell into a population of cells containing neurons and glia cells.

7. (Original) The method of any one of claims 4 to 6, wherein the neural stem cell is derived from mammalian neural tissue selected from the group consisting of brainstem, cerebellum, cerebral cortex, midbrain, spinal cord and ventricular.

8. (Previously Presented) The method of any one of claims 4 to 6, wherein the neural stem cell is genetically modified.

9-14. (Canceled)

15. (New) The method of any one of claims 4-6, wherein the growth medium comprises 1 ng/ml to 100 ng/ml of HGF and FGF-2.

16. (New) The method of any one of claims 4-6, wherein the growth medium comprises 1 ng/ml to 20 ng/ml of HGF and FGF-2.

17. (New) The method of any one of claims 4-6, wherein the HGF and FGF-2 are maintained in equal concentrations in the growth medium.

18. (New) The method of any one of claims 4-6, wherein the majority of the population of cells are neurons.

19. (New) A method for culturing neural stem cells comprising the step of culturing a neural stem cell or a population of cells comprising at least one neural stem cell in the growth medium comprising HGF and FGF-2 at atmospheric oxygen levels.

20. (New) A method for proliferating neural stem cells comprising the step of culturing a neural stem cell or a population of cells comprising at least one neural stem cell in the growth medium comprising HGF and FGF-2 at atmospheric oxygen levels.

21. (New) A method for differentiating neural stem cells into a population of cells containing neurons and glia cells comprising the step of culturing a neural stem cell or a population of cells comprising at least one neural stem cell in the growth medium comprising

HGF and FGF-2 at atmospheric oxygen levels and under conditions that allow the differentiation of the neural stem cell into a population of cells containing neurons and glia cells.

22. (New) The method of any one of claims 19 to 21, wherein the neural stem cell is derived from mammalian neural tissue selected from the group consisting of brainstem, cerebellum, cerebral cortex, midbrain, spinal cord and ventricular.

23. (New) The method of any one of claims 19 to 21, wherein the neural stem cell is genetically modified.